



Fact Sheet

Fact Sheet 556

Preserving Flowers and Leaves

Many flowers and woody plants growing around your home and in the wild can be preserved for dried arrangements. It is important that you select the proper drying method for each type of plant, because no one method is satisfactory for all plants.

Selecting and Harvesting

Plants for preserving may be collected throughout the year. Collect flowers of various shapes, colors and textures. Try picking flowers at different stages of development.

When you are harvesting, avoid collecting plants when they are wet. Dry plants are easier to handle.

Cut flowers and plants with a sharp knife or pruning shears. After cutting, strip the leaves from the stem, since foliage on the stems of flowers does not dry properly. Splintering herbaceous stems that are one-fourth of an inch or more in diameter will also aid drying.

To keep plant samples fresh until you are ready to preserve them, place them in plastic bags in the shade. Do not place the stems in water.

Wiring Flowers

If you are going to mount flowers on wires, do so before drying. To wire plants, cut the stem just below the calyx of the flower. Using needle-nose pliers, form a "J" with a piece of 8- to 10-inch #22 to #24 stiff floral wire. The "J" should be one-eighth of an inch wide with a $\frac{1}{2}$ -inch long leg. Insert the long leg of the "J" through the center of the flower and push it out through the center of the cut stem. Using floral tape, fasten the flower to the wire by wrapping the wire and the calyx of the flower together.

Methods of Preserving

There are several different methods for drying plants and flowers. The accompanying table will help you determine which method is most appropriate for the plant or flower you want to preserve. All of these methods should be conducted in a room away from direct sunlight.

Air-Drying

Air-drying is the easiest method of preserving flowers and seedpods. Simply tie the bases of the stems in small, loose bundles and hang them upside down in a dark, warm, dry room. It takes 1 to 3 weeks for flowers to dry completely. If you are drying several dozen bundles of plants, use a small fan to circulate

the air in the room.

Chemical Drying

Borax, detergents or commercially prepared mixtures are often preferred for drying most opened flowers and buds. Flowers preserved with these mixtures hold their natural shapes better; shrinkage is minimal; and color retention is generally better.

Although commercially prepared mixtures are expensive, professionals prefer them because they need no mixing; they have a high moisture-absorbing capacity; and most flowers retain their colors better. Commercial mixtures can also be used over again by redrying in an oven. Instructions for redrying are included with commercial mixtures.

To make your own drying mixtures, blend equal parts of borax and cornmeal, borax and dry sand, or borax and oatmeal. Some prefer using 1 part borax to 5 or 10 parts of any of the other materials. Detergents without bleach can be used as a substitute for borax. After some experience, you will learn what mix works best for you.

Plants and flowers can take from 1 to 3 weeks to dry. Determine if they are ready to be removed from the mixture by gently squeezing a petal. If the petal feels cool and moist, more drying time is needed. If the petal feels dry, carefully remove the flower or plant and feel the base of the flower for possible moisture in the calyx. If moisture is evident, place the plant or flower back in the drying mixture. If the base is also dry, the flower is ready to be removed.

When using borax or detergents for drying, do not allow the flowers to remain in the mixtures too long, because the petals will become brittle. Another problem with using your own drying agents is that red and pink flowers dried with borax tend to lose some of their color.

Not all flowers should be dried in the same position when using drying mixtures. The position in which the flowers will be dried depends on the type of flowers being preserved and their stages of maturity. Experiment with different positions to find one that is appropriate for your plants and easy for you.

Faceup drying. To dry flowers faceup, use a shallow box with 3- to 4-inch sides, supported 8 to 10 inches from the ground by wooden legs or by another box (Figure 1). Spread several layers of newspapers on the bottom of the box and punch holes through the bottom of the box and the newspapers. The holes should be large enough for stems or wires to go through and far enough apart so flower heads do not touch.



Figure 1. Faceup drying.

Draw the flower stems or wires through the holes with the flowers resting faceup on the bottom of the box. Sift the drying mixture under and between all of the petals and around the flowers until they are

completely, but only lightly, covered.

Facedown and horizontal drying. When drying the flowers facedown or horizontally, protect the flowers and florets from getting a flat appearance by sticking a corsage pin into the head or stem of each plant. The head of the pin should stick $\frac{1}{2}$ to 1 inch beyond the flower or florets (Figure 2).

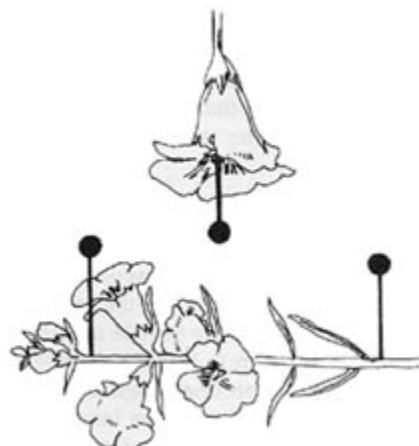


Figure 2. Facedown and horizontal drying.

Place $\frac{1}{2}$ to 1 inch of drying material on the bottom of the box and make small mounds with the mixture in places where the flowers will be placed. Place the flowers on the mounds with the heads of the pins resting on the bottom of the box. Sift the drying mixture between and around the petals until the flowers are completely covered. Do not cover the stems.

When drying spikes of florets or other flowers in a horizontal position, place several pins into the sides of each stem before laying them on the drying media. Place only one layer of flowers per box.

When the flower petals are thoroughly dry, which takes 1 to 3 weeks, remove the flowers from the mixture by gently sliding your fingers beneath the flowers and lifting. As you lift a flower, shake your hand slightly to loosen the excess drying mixture from the petals. Using a soft brush, remove all of the drying material from the petals.

Sand Drying

Fine, white beach sand that has been oven-dried at 180°F can be used alone for drying flowers. If the sand comes from an ocean beach, it should be thoroughly rinsed free of salt before using. When using dry, white beach sand, follow the same procedures outlined for borax, detergent or commercially prepared mixtures, but allow an additional 3 to 4 days to dry.

When removing flowers that have been in sand, punch holes through the bottom of the box and allow the sand to run out. Most of the sand can be made to run out by gently shaking the box. Do not lift the flowers from the sand.

Pressing Foliage and Flowers

Pressing is the most common method used for preserving fragile flowers as well as summer and fall foliage. Foliage is most easily pressed by first allowing it to wilt slightly. Wilted foliage is easier to arrange than stiff foliage. Prepare a plant press by obtaining pieces of corrugated cardboard cut to the size of a newspaper folded into quarters. Over the cardboard, place several layers of newspapers. Next, lay the leaves on the newspaper and arrange them to the desired form. Then place several sheets of newspaper over the foliage before covering with another piece of corrugated cardboard the same size as

the first piece. Each individual sample should be sandwiched between newspaper and cardboard, but 1 to 10 samples can be layered in a single pile. When the pile of samples is complete, place a large, flat board on top of the last layers of cardboard. On top of the board, place two or three bricks or objects of similar weight. Blotter papers are often used between the newspapers and the pieces of cardboard to absorb excess moisture.

To press delicate flowers, lay the flowers flat between several layers of white paper towels or table napkins. Avoid folding the petals. Moistening the petals lightly to hold them in place or allowing the petals to wilt slightly before pressing is often desirable. Place the samples on a flat surface and cover with newspaper and a heavy book. If the petals are thick and fleshy, the pressing papers should be changed every night until most of the moisture has been absorbed.

The plant press should be placed in a warm, dry room or in the full sun during the day and stored under cover during the night. Taking the plant press apart every 2 to 3 days and replacing the newspapers or paper towels until most of the water has been absorbed will hasten drying and prevent potential mildew problems. The foliage is generally thoroughly dried within 2 to 3 weeks, but fleshy stems will take longer. After the foliage is dry, it is ready to mount on parchment paper or poster board for framing.

Preserving With Glycerin

Glycerin is used to preserve leaves on stems without pressing. This method of preserving leaves gives them a more natural appearance appropriate for dry arrangements. To preserve leaves and branches with glycerin, cut the branches 4 to 6 inches longer than you want the finished product. Cut branches in the morning.

Using a hammer, crush the lower 4 to 6 inches of each stem to facilitate absorption of the glycerin. Place stems in a hot (80 to 100°F) mixture of 1 part glycerin and 2 parts water.

To prepare the glycerin mixture, simply heat water to 150 to 180°F, add the glycerin and stir until cooled to recommended temperature. A sufficient amount of glycerin mixture should be used to cover the areas of the stems that have been crushed. A 1-quart, plastic-coated milk carton makes an excellent container for treating most stems. The stems should be allowed to soak in the solution for 2 to 6 weeks, depending on the length of the stems and the species of plant being treated. During this soaking period, the level of the solution should be checked daily and maintained by adding only water. The length of time necessary to treat each branch can be determined by watching the migration of the glycerin through the leaves. Most foliage preserved with glycerin turns greenish brown but remains turgid and pliable indefinitely. Leaf color may be altered by adding food coloring to the glycerin solution.

Preserving With Shellac

Shellacking seedpods and dried berries is an excellent method for preventing them from opening and falling off their stems. Dilute shellac with 2 parts of denatured alcohol and apply it to the seed pods or berries by brushing, dipping or spraying. Because alcohol is volatile, this treatment should be done in a well-ventilated room and away from an open flame. If shellac is not readily available, two to three applications of any inexpensive hair spray will be equally effective.

Storing Preserved Materials

Store dried materials in a dark, dry, airtight container. A layer of tissue paper should be placed between flowers to reduce breakage. Dried flowers and leaves may be sprayed with any clear plastic spray that does not contain water. Spraying the dried flowers with a clear plastic will prevent them from absorbing water during humid periods and prevent dust from sticking and discoloring the petals.

Recommended methods of preserving flowers and leaves^a

Air-Drying			
Astilbe	False-dragonhead	Lilac	
Baptisia	Fennel	Marigold	Smoketree
Blackberry-lily	Globethistle	Milkweed	Statice
Cattail	Goldenrod	Okra	Strawflower
Chinese lantern	Grains	Paulownia	Tansy
Clover	Grasses	Polygonum	Teasel
Cockscomb	Honesty	Rose	Thistle
Dock	Hydrangea	Salvia	Yarrow
Dusty-miller	Larkspur	Santolina	
Chemical Drying			
Ageratum	Dahlia	Larkspur	
Aster	Delphinium	Lilac	
Bells of Ireland	Dogwood	Lily-of-the-valley	Salvia
Carnation	False-dragonhead	Magnolia	Snapdragon
Chrysanthemum	Feverfew	Marigold	Stock
Coleus	Forsythia	Pansy	Tulip
Coralbells	Gladiolus	Passionflower	Waterlily
Cornflower	Hollyhock	Peony	Yarrow
Daffodil	Hydrangea	Queen-Anneslace	Zinnia
Daisy	Lantana	Rose	
Sand			
Anemone	Chrysanthemum	Delphinium	Pansy
Black-eyed-susan	Coneflower	Gladiolus	Rose
Butterflyweed			
Glycerin (foliage only)			
Apple	Forsythia	Laurel	Pine
Barberry	Gardenia	Leucothoe	Russian-olive
Bayberry	Huckleberry	Ligustrum	Sycamore
Bells of Ireland	Juniper	Magnolia	Viburnum
Blackberry-lily	Larkspur	Pear	Yucca
Dogwood			

^aPressing can be used for all foliage and all simple flowers with few petals.

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